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012484194 **Image available**

WPI Acc No: 1999-290302/199925

XRAM Acc No: C99-085930

Flame retardant resin compositions

Patent Assignee: SHINETSU CHEM CO LTD (SHIE); SHINETSU CHEM IND CO LTD (SHIE)

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Number of Countries: 027 Number of Patents: 003

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 918073	A2	19990526	EP 98309442	A	19981118	199925 B
JP 11222559	A	19990817	JP 98333442	A	19981109	199943
US 6184312	B1	20010206	US 98193851	A	19981118	200109

Priority Applications (No Type Date): JP 97335153 A 19971119

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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EP 918073	A2	E	13	C08L-101/00	
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Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT

LI LT LU LV MC MK NL PT RO SE SI

JP 11222559	A		10	C08L-101/00	
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US 6184312	B1			C08G-077/06	
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Abstract (Basic): EP 918073 A2

NOVELTY - Small amount of organosiloxane component of specific structure, containing phenyl and alkoxy radicals, ensures sufficient retardant effect.

DETAILED DESCRIPTION - The composition comprises

(A) 100 parts weight synthetic resin with aromatic ring in molecule; and

(B) 0.1-10 parts weight organosiloxane with phenyl and alkoxy radicals, of formula (I).

R1=phenyl;

R2=1-6C monovalent hydrocarbon radical, excluding phenyl;

R3=1-4C monovalent hydrocarbon radical;

m=0.5-2.0;

n=0-0.9;

p=0.42-2.5;

q=0-0.35; and

m+n+p+q=0.92-2.8.

INDEPENDENT CLAIMS are also included for:

(1) flame resistant article made of resin composition as claimed; and

(2) the use of organosiloxane (B) to impart flame retardance to organic resin compositions with aromatic rings, especially the ones in which the resin is aromatic polycarbonate or aromatic epoxy resin.

USE - Flame retardant resin compositions are used in production of electric and electronic parts, building materials, car parts and various daily use goods.

ADVANTAGE - The composition has good flame retardance, does not emit harmful gases on burning, and can be molded into parts having optical transparency.

pp; 13 DwgNo 0/0

Technology Focus:

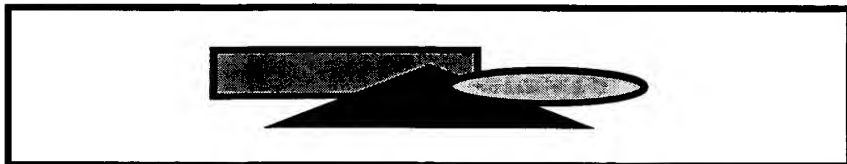
TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Composition:

Organosiloxane (B) has preferably weight average molecular weight of 410 up to below 2000, and contains at least 50 mol% of units of formula (II).

R4=phenyl or 1-6C monovalent hydrocarbon radical, excluding phenyl;
and

X=-OH, -OR3 or siloxane residue represented by O1/2, O2/2 and O3/2,
when 1, 2 and 3 of X radicals are siloxane residues, respectively, and
O atoms bond with other Si atoms to form siloxane bonds, and at least
one of the three X radicals attached to one Si atom is a siloxane
residue.

POLYMERS - Preferred Components: Component A is preferably aromatic



polycarbonate resin or aromatic epoxy resin.

Title Terms: FLAME; RETARD; RESIN; COMPOSITION

Derwent Class: A21; A23; A26; A28; A60; E11

International Patent Class (Main): C08G-077/06; C08L-101/00

International Patent Class (Additional): C08K-005/54; C08L-063/00;

C08L-069/00; C08L-071/02; C08L-083/04; C08L-083-06; C08L-101/00

File Segment: CPI

Manual Codes (CPI/A-N): A05-A01B; A05-E06A; A06-A00B; A07-A03A; A07-A03B;
A08-F

Chemical Fragment Codes (M3):

01 B514 B712 B720 B741 B742 B760 B794 B831 G010 G019 G100 K930 M121
M147 M210 M211 M212 M213 M214 M215 M216 M231 M232 M233 M250 M272
M280 M281 M320 M411 M510 M520 M531 M532 M540 M781 M904 M905 Q130
Q621 0002-32601-K 0002-32601-U

Polymer Indexing (PS):

<01>

001 018; D18-R; P0862 P0839 F41 F44 D01 D63; S9999 S1387; M9999 M2073

002 018; ND04; K9745-R; B9999 B4239; N9999 N5970-R; B9999 B4397 B4240;
K9870 K9847 K9790

003 018; B9999 B5094 B4977 B4740

004 018; A999 A248-R

005 018; A999 A157-R

<02>

001 018; D18-R; P0464-R D01 D22 D42 F47; S9999 S1387; M9999 M2073

002 018; ND04; K9745-R; B9999 B4239; N9999 N5970-R; B9999 B4397 B4240;
K9870 K9847 K9790

003 018; A999 A248-R

004 018; A999 A157-R

<03>

001 018; D11 D10 D19 D18 D76 F86 F87; A999 A248-R; A999 A782; P1445-R
F81 Si 4A; H0237-R; S9999 S1387

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7A; R01740 G2335 D00 F20 H- O- 6A; A999 A248-R; A999 A782; P1445-R
F81 Si 4A; H0011-R; L9999 L2528 L2506; H0237-R; M9999 M2391

003 018; B9999 B5094 B4977 B4740; N9999 N6177-R; N9999 N5709; N9999
N6735-R N6655; K9949

004 018; R00270 D01 D11 D10 D50 D81 F27 F26; C999 C204; C999 C306

005 018; R00862 D01 D02 D11 D10 D19 D18 D31 D50 D76 D87; A999 A475

<04>

001 018; A999 A157-R; A999 A782; P0226 P0282-R D01 D18 F30

Generic Compound Numbers: 0002-32601-K; 0002-32601-U

Key Word Indexing Terms:

01 0002-32601-CL, USE